



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/030,113	01/23/2002	Hideaki Shoji	217903US2PCT	6602

22850 7590 01/24/2003

OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

CHEN, SHIH CHAO

ART UNIT PAPER NUMBER

2821

DATE MAILED: 01/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/030,113

Applicant(s)

SHOJI ET AL.

Examiner

Shih-Chao Chen

Art Unit

2821

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. In response to the communication dated January 23, 2002 through February 27, 2002, claims 1-9 are active in this application.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

3. The information disclosure statement (IDS) filed on January 23, 2002 has been considered.

Oath/Declaration

4. Oath or declaration filed on January 23, 2002 has been considered

Specification

5. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

6. Claim 9 is objected because the following informalities: "said third antenna unit (20a) projecting from said main unit case (10) and said fourth antenna unit (20c) located in said main unit case (10)" should be changed to -- said third antenna unit (22a) projecting from said main unit case (10) and said fourth antenna unit (22c) located in said main unit case (10)--. Appropriate correction is required.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

8. Claims 1-5 and 7-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Yukihiro et al. (JP 11274828 A).

Regarding claim 1, Yukihiro et al. teaches in figures 1-5 an antenna element comprising: a first antenna unit (1) formed so as to extend in one direction; and a second antenna unit (2) extending substantially orthogonal to the extending direction of the first antenna unit (1), having an electrical length of substantially $(\lambda/2) \times A$ (A is an integer) (See col. 4, lines 13-23), and coupled to the first antenna unit (1).

Regarding claim 2, Yukihiro et al. teaches in figures 1-5 the antenna element wherein the first antenna unit (1) has an electrical length of approximately

$(\lambda/4) + (\lambda/2) \times B$ (B is an integer) (See col. 4, lines 13-23).

Regarding claim 3, Yukihiro et al. teaches in figures 1-5 the antenna element wherein the first antenna unit (1) includes a meander line antenna (13).

Regarding claim 4, Yukihiro et al. teaches in figures 1-5 the antenna element wherein the second antenna unit (2) includes a line antenna (See Fig. 5(b)).

Regarding claim 5, Yukihiro et al. teaches in figures 1-5 the antenna element wherein line antenna includes a helical antenna (3).

Regarding claim 7, Yukihiro et al. teaches in figures 1-5 the antenna element wherein the first antenna unit (1) and the second antenna unit (2) are attached in order to a feeding point (4).

Regarding claim 8, Yukihiro et al. teaches in figures 1-5 a portable information terminal comprising: a main unit case (11); and an antenna element (1, 2) including a first antenna unit (1) arranged within the main unit case (11), and formed to extend in one direction, and a second antenna unit (2) extending substantially orthogonal to the extending direction of the first antenna unit (1), and arranged projectable from the main unit case (11), having an electrical length of approximately $(\lambda/2) \times A$ (A is an integer) (See col. 4, lines 13-23), and coupled to the first antenna unit (1).

9. Claims 1 and 6-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Gamalielsson et al. (U.S. Patent No. 6,388,626).

Regarding claim 1, Gamalielsson et al. teaches in figures 1-17 an antenna element comprising: a first antenna unit (1) formed so as to extend in one direction; and

Art Unit: 2821

a second antenna unit (11) extending substantially orthogonal to the extending direction of the first antenna unit (1), having an electrical length of substantially $(\lambda/2) \times A$ (A is an integer) (See col. 3, lines 62-64), and coupled to the first antenna unit (1).

Regarding claim 6, Gamalielsson et al. teaches in figures 1-17 the antenna element further comprising a substrate (6) with a conductive surface, the first antenna unit (1) being provided on the surface of the substrate (6) with a dielectric (3) therebetween, and the second antenna unit (11) being provided so as to extend from the substrate (6).

Regarding claim 7, Gamalielsson et al. teaches in figures 1-17 the antenna element wherein the first antenna unit (1) and the second antenna unit (11) are attached in order to a feeding point (1c).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yukihiro et al. (Cited above) in view of Gamalielsson et al. (Cited above).

Yukihiro et al. teaches every feature of the claimed invention except for the line antenna located in the main unit case.

Gamalielsson et al. teaches in figure 3 the line antenna (11) located in the main unit case (2).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute the line antenna as shown in Yukihiro et al. by using the line antenna located in the main unit case as taught by Gamalielsson et al. in order to have the rod antenna element and the internal element have a relatively small electromagnetic interaction (See col. 2, lines 33-35).

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shih-Chao Chen whose telephone number is (703) 306-2721. The examiner can normally be reached on Monday-Friday from 7 AM to 4:30 PM, First Fri. off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (703) 308-4856. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-5841 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Shih-Chao Chen

Shih-Chao Chen
Examiner
Art Unit 2821

SXC
January 16, 2003